

PARTICLE THEORY

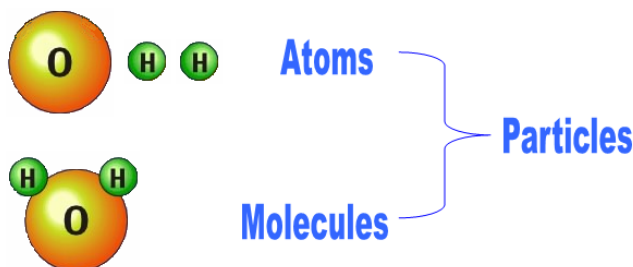
The particle theory of matter is:

A scientific model of the structure of matter; according to the particle theory, all matter is made up of extremely tiny particles, and each pure substance has its own kind of particle, different from the particles from any other pure substance.

There are five main points to the particle theory:

1. All matter is made up of particles
2. All particles in a pure substance are identical (no two different pure substances have the same particles)
3. All particles have space between them
4. All particles are always moving – more energy (heat) produces more movement
5. All particles are attracted to one another

There are two things we refer to as particles. These two things are atoms and molecules. Molecules are made from atoms. See the illustration below:



The different states of matter can be explained using the particle theory:

Criteria	Solid	Liquid	Gas
Spacing	Very Close	Far Apart	Very Far Apart
Movement	Slow Shakes, No Change of Location	Rapid Movements	Extremely Fast Movement
Attracting	Very High Ability to Attract	Low Ability to Attract	Very Low Ability to Attract
Picture			